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DRIVE RESULTS**

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October 9, 2009

Mr. Don McElroy
EPA Region 1
One Congress Street, Suite 1100
Boston, MA 02114

Superfund Records Center

SITE: Iron Horse OU3

BREAK: _____

OTHER: 639737

Re: Iron Horse Park Superfund Site – Billerica, Massachusetts
Environmental Monitoring and Reporting Work Plan
Second Round Baseline Monitoring Results (July 2009)

Dear Don:

On behalf of BNZ Materials, Inc. (BNZ), this submittal presents the results of the second round of baseline environmental monitoring conducted at Area of Concern 7 (AOC 7), the Asbestos Lagoons (the Site) associated with Operable Unit 3 (OU 3) of the Iron Horse Park Superfund Site in Billerica, Massachusetts. This submittal is pursuant to the data evaluation and reporting conditions set forth in the Revised Environmental Monitoring and Reporting Work Plan (EMP) submitted on November 26, 2008. As in April 2009, the scope of the groundwater monitoring event implemented in July 2009 was reflective of the comments made by the U.S. Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (MassDEP) after their review of the November 26, 2008 revision of the EMP as well as subsequent verbal updates agreed upon between W&C and the Agencies.

OBJECTIVE AND APPROACH

The specific objective of the baseline monitoring program is to evaluate groundwater conditions at the Asbestos Lagoons for two purposes:

- To compare current levels of the constituents of concern to historical groundwater data; and,
- To establish a baseline of groundwater concentrations prior to remedy implementation (i.e., consolidation and capping of the lagoons).

A total of three upgradient monitoring wells, two upgradient piezometers, seven down-gradient or cross-gradient monitoring wells, and two downgradient piezometers were sampled during the first two baseline sampling events in April and July 2009 (14 wells total; refer to Figure 1)). As requested by EPA and MassDEP, groundwater samples from the well network were submitted for a comprehensive set of laboratory analyses including volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), pesticides, metals, and select inorganic analytes.

A summary of analytical and sampling methods for groundwater monitoring is provided in Sections 9 through 11 of the QAPP. Additionally, refer to the QAPP for the QA/QC Summary (Table 6-1), Groundwater Contaminants of Concern and Other Analytes (Tables 6-4 through 6-9), the Media-Specific Project Quality Objectives (Table 7-1), and the Data Validation Criteria (Table 19-1).





IMPLEMENTATION

The second round of baseline groundwater monitoring conducted under the EMP was performed July 27-28, 2009. Prior to sampling any wells, the depth to water was gauged in all viable monitoring wells. Results of the groundwater gauging survey and calculated groundwater elevations are presented in Table 1.

All existing site monitoring wells with the exception of distant upgradient wells OW-13 and OW-14 were monitored and sampled during this second baseline monitoring event. The groundwater sampling was performed in accordance with W&C's SOP S-7 "*Standard Operating Procedure for Low Stress / Low Flow Groundwater Sampling*" included in the QAPP. Groundwater chemistry parameters measured in the field included pH, dissolved oxygen, temperature, conductivity, oxidation-reduction potential, and turbidity. All monitoring equipment was calibrated prior to each sampling day. A table presenting the groundwater chemistry measurements recorded at stabilization (i.e., immediately prior to sample collection) is provided as Table 2.

Upon stabilization of groundwater chemistry parameters, samples were collected from each monitoring well for the stated analyses. All samples were labeled and handled under chain of custody protocol and placed on ice in a cooler. Samples were picked up from the site each day by a laboratory courier and delivered to Alpha Analytical Laboratory of Westborough, Massachusetts for extraction and analysis according to the methods stated in the QAPP. Analytical results of the groundwater analyses are summarized on Table 3. Complete laboratory analytical reports will be provided in CD format to accompany a hard copy of this letter in the mail.

RESULTS

Groundwater Elevation and Flow

A preliminary review of the site-wide groundwater elevations indicates that groundwater in the shallow overburden, deep overburden, and bedrock aquifers flows in a northeasterly direction. These results confirm the April and August 1995 monitoring well gauging data presented by Metcalf & Eddy in the 1997 *Remedial Investigation Final Report*. Depth to groundwater across the site has typically been observed between 1 and 4 feet below ground surface during all gauging events. A groundwater contour plan of the shallow overburden groundwater flow at the site is provided as Figure 2.

Groundwater Chemistry

Stabilized groundwater conditions after low-flow purging were reported with low turbidity (all wells less than 8 NTUs) and with fairly neutral pH (ranging between 5.0 and 7.8); turbidity and pH readings at all wells were consistent between the April and July events. Stabilized dissolved oxygen levels were all reported less than 0.80 mg/L, and consistency between April and July sampling events was observed. Specific conductivity levels were typically low, with all wells reported below 1.0 ms/cm³ during April and July sampling events, except for OW-9 reported at 4.7 ms/cm³ in April and 5.6 ms/cm³ in July 2009. Oxidation-reduction potential levels ranged between -177.2 and 217 millivolts with an average value (April and July combined) of -43 millivolts.

Groundwater Analytical Data

Results of the groundwater analyses were reviewed and compared to the applicable MCP Method 1 Standards (GW-3 Standards only). Note that although groundwater data was historically compared to Maximum Contaminant Levels (MCLs) during the Remedial Investigation phase of work, MCP Method 1



GW-1 Standards (similar to MCLs) do *not* apply to the Site. Tables 3b – 3d present the data with Method 1 GW-3 Standards as they are the applicable standards for comparison under the MCP; Method 1 GW-1 Standards are provided for historical data comparison purposes only.

Table 3a presents an analytical data summary of the general chemistry parameters, including total alkalinity, chloride, cyanide, nitrogen as nitrate, total dissolved solids, sulfate, and total organic carbon. All analytes were reported with consistent results between April and July 2009 sampling events.

Table 3b presents an analytical data summary for VOCs. Only those compounds detected in at least one monitoring well during either sampling event are presented in this table. Low-level detections of 14 different VOC analytes were reported in 5 of the 15 wells in July 2009, in comparison to the 10 VOC analytes detected in 7 of 15 wells in April 2009. The 4 additional analytes reported in July were all detected in monitoring well OW-12 only. Monitoring wells MW-208S and PZ-107, each reported with a single compound above laboratory reporting limits in April 2009, were both reported non-detect for all VOCs in July 2009. The most frequently detected VOCs were 1,1-Dichloroethane (1,1-DCA), 1,2-Dichloroethane (1,2-DCA), and Tetrachloroethene (PCE), each detected in three monitoring wells. **No VOCs were detected in exceedance of Method 1 GW-3 standards during either April or July.** Wells OW-9 and OW-12 had the highest number of VOCs reported in July 2009, with seven VOCs detected in each well.

Table 3c presents an analytical data summary for SVOCs. Only those compounds detected in at least one monitoring well during either sampling event are presented in this table. In comparison to the April 2009 event where no SVOCs were reported above laboratory reporting limits, two SVOC compounds in OW-12 and two SVOC compounds in PZ-107 were reported in the July 2009 event. **All SVOC compounds were reported below Method 1 GW-3 groundwater standards.**

Table 3d presents an analytical data summary for total metals. In July 2009, Barium, Iron, Sodium, Calcium, Magnesium, and Manganese were each detected above laboratory reporting limits in 15 out of 15 wells. Notably, several metals were not detected in any site monitoring wells during April or July 2009, including Antimony, Cadmium, Chromium, Copper, Lead, Mercury, Selenium, Silver, Thallium, and Vanadium. Reported results for total metals in July 2009 were consistent with the results reported in April 2009. **No metals were detected in exceedance of Method 1 GW-3 standards with the exception of Nickel, which was reported at 0.33 mg/l in well OW-9 in both April and July (GW-3 Standard of 0.2 mg/l).**

The laboratory reported no constituents in exceedance of laboratory reporting limits for any PCB or Pesticide compounds during either the April or July 2009 sampling events; as such, summary tables for these constituents have not been prepared.

DATA QUALITY AND VALIDATION

Data collected during the July 2009 sampling event was validated by Data Check, Inc. of New Durham, New Hampshire (Data Check) according to a modified Tier II validation procedure, as described in Section 18.1 of the QAPP. The modified Tier II review included a completeness check of field documentation including sample collection and preservation methods, a completeness check of the laboratory data and documentation, a review of the internal laboratory QA/QC procedures and results including surrogate recoveries, matrix spike and matrix spike duplicate results, blank results, and laboratory control standard results, and an evaluation of sample holding times, trip blank results, and field duplicate results. Data Check's data validation summary is attached to this letter.



Quality Control (QC) samples were collected in the field in accordance with Section 13 of the QAPP. One VOC trip blank was included with each shipment of samples sent to the laboratory for analysis using identical methods. One duplicate sample and one field blank sample were collected and submitted for each analysis of the sampling event. Calculated relative percent differences between primary sample (OW-9) and field duplicate sample (OW-9 DUP) results were within acceptance criteria for all analyses, indicating good precision of the data. No constituents were detected for any analysis group in the field equipment blank (EB-01). No constituents were detected for VOCs in either of the trip blank samples (Trip Blank 01 and Trip Blank 02).

Accuracy of the analytical data was assessed by reviewing recoveries for matrix spikes, surrogates, laboratory control samples (LCS) and laboratory control sample duplicates (LCSD). No qualifications were applied to VOC results due to LCS/LCSD recoveries outside of acceptance criteria with the exception of dichlorodifluoromethane; all samples were non-detect for the analyte and were qualified (UJ). No qualifications were applied to SVOC results due to LCS/LCSD recoveries with the exception of three SVOC analytes in select samples; these samples were non-detect for those analytes and were qualified (UJ). No matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on any VOC, SVOC, PCB, pesticide, or metal samples; MS/MSD analyses for the general chemistry parameters resulted in no qualifications being applied to the data. All laboratory method blanks were non-detect for each analysis, and all surrogate recoveries met acceptance criteria. These results indicate good accuracy of the analytical data.

Consistent procedures and laboratory analysis of the data were achieved. Sample containers were packed on ice and were accompanied by complete chain of custody forms from the time of sample collection until laboratory delivery. All samples were extracted and/or analyzed within their respective technical holding times for each analysis. Certain samples were analyzed at elevated detection limits as a result of sample dilutions performed at the laboratory as stated in the data validation summary. Detected TOC results from July 2009 were estimated (J) and non-detected results were rejected (R) due to improper sample preservation.

Where applicable, data qualifiers are presented with the associated samples in the analytical data summary (Tables 3a – 3d). Review of the data indicates that the data are complete and representative, and that the data are of sufficient quality for use in rendering an opinion of groundwater conditions at the site.

CONCLUSIONS

The results of the first two rounds of baseline monitoring data collected in April and July 2009 are consistent with historic data. Low levels of VOCs have been detected in seven wells with no analytes exceeding Method 1 GW-3 groundwater standards at any site monitoring wells. Variable concentrations of metals have been reported in all 14 wells sampled in April and July, with only one analyte exceeding Method 1 GW-3 standards (Nickel in OW-9). No PCBs or Pesticides were detected above laboratory reporting limit in any samples in April or July. Two wells were reported with low-level detections of four SVOC analytes in the July 2009 sampling event only, with all results reported below applicable Method 1 GW-3 standards.

The third baseline groundwater sampling event is tentatively scheduled for the week of October 26, 2009. Given the results of the first two rounds of groundwater sampling, W&C proposes that the analysis of Pesticides, PCBs, SVOCs, and certain metals be eliminated from the scope of this upcoming event – these analytes are not constituents of concern at the site and have been reported either at non-detect or very low levels in the first two rounds of sampling. The remaining sets of



analyses would include VOCs, general chemistry compounds inclusive of the parameters presented on Table 3a, and only those metals that are historic contaminants of concern (Nickel and Lead).

Based on the results of the first two baseline events, which were consistent with historic results and confirmed that impacts to groundwater in the vicinity of the lagoons are limited and well below applicable standards, we do not believe that the continued analysis of pesticides, PCBs, SVOCs or metals other than lead or nickel is technically warranted. Specifically, since one of the primary uses of the monitoring data is to allow the evaluation of the performance of the cap, there is no value in continuing to analyze for compounds that are non-detect or at diminimis levels since a comparison between pre- and post-capping results will be of no real value. In addition, since the cost of analyzing these constituents represents nearly 70% of the total laboratory analytical fees (over \$10,000) per sampling event, we do not believe that continued analyses of these constituents is justifiable from a cost-benefit perspective.

We would like to discuss the reduction in target analytes with you at your earliest convenience so that we can make the appropriate modifications prior to the third baseline sampling event. Please contact me if you have questions or once you have had a chance to review this information so that we can discuss this request.

Sincerely,

WOODARD & CURRAN INC.

Peter E. Nangeroni, P.E.
Senior Project Manager

Project No. 221780

Enclosures: Table 1 – Groundwater Elevation Summary
Table 2 – Groundwater Chemistry
Table 3a – Groundwater Analytical Data Summary – General Chemistry
Table 3b – Groundwater Analytical Data Summary – VOCs
Table 3c – Groundwater Analytical Data Summary – SVOCs
Table 3d – Groundwater Analytical Data Summary – Total Metals
Figure 1 – Groundwater Monitoring Well Network
Figure 2 – Shallow Groundwater Contour Plan
Data Check, Inc. Data Validation Summary (on CD)
Alpha Analytical Laboratory Reports (on CD)

cc: Janet Waldron (MassDEP)
Neil Thurber (AECOM)

Table 1
Groundwater Elevation Summary
Iron Horse Park Superfund Site - AOC 7 / OU3

| Well | Top of PVC (ft NGVD) | Well Screen Interval (ft bgs) | Depth to Bottom (from top of PVC) | Depth to Groundwater (from top of PVC) | | | Groundwater Elevation (feet amsl) | | |
|--------------------|-------------------------|-------------------------------------|--|---|---------|---------|--------------------------------------|---------|---------|
| | | | | 10/10/08 | 4/20/09 | 7/27/09 | 10/10/08 | 4/20/09 | 7/27/09 |
| Downgradient Wells | | | | | | | | | |
| OW-09 | 116.33 | 64.5 - 84.5 | 85.90 | 4.25 | 4.52 | 3.92 | 112.08 | 111.81 | 112.41 |
| OW-10 | 116.06 | 50 - 65 | 61.80 | 3.92 | 4.19 | 3.60 | 112.14 | 111.87 | 112.46 |
| OW-11 | 116.20 | 25 - 40 | 41.59 | 4.10 | 4.35 | 3.75 | 112.10 | 111.85 | 112.45 |
| OW-12 | 116.01 | 5 - 20 | 21.22 | 3.27 | 3.34 | 3.07 | 112.74 | 112.67 | 112.94 |
| OW-13 | 120.02 | 33 - 48 | 50.10 | 7.55 | 7.82 | 7.24 | 112.47 | 112.20 | 112.78 |
| OW-14 | 120.44 | 7.8 - 22.8 | 24.65 | 8.08 | 8.37 | 7.79 | 112.36 | 112.07 | 112.65 |
| OW-20 | 116.87 | 33.5 - 43.5 | 40.05 | 5.02 | 5.05 | 4.53 | 111.85 | 111.82 | 112.34 |
| OW-21 | 116.31 | 3.5 - 18.5 | 19.67 | 4.67 | 4.67 | 4.15 | 111.64 | 111.64 | 112.16 |
| MW-209B | 117.08 | 45 - 65 | 67.11 | 5.26 | 5.18 | 4.66 | 111.82 | 111.90 | 112.42 |
| Upgradient Wells | | | | | | | | | |
| MW-208S | 117.49 | 9 - 19 | 21.15 | 4.86 | 4.89 | 4.34 | 112.63 | 112.60 | 113.15 |
| MW-208D | 117.22 | 30 - 40 | 42.62 | 4.60 | 4.63 | 4.07 | 112.62 | 112.59 | 113.15 |
| MW-208B | 117.51 | 64 - 84 | 85.85 | 4.80 | 4.88 | 4.31 | 112.71 | 112.63 | 113.20 |
| Piezometers | | | | | | | | | |
| P-5 | 114.87 | 3.8 - 8.8 | 7.90 | 3.23 | 3.21 | 2.71 | 111.64 | 111.66 | 112.16 |
| PZ-107 | 116.42 | 3.5 - 8.5 | 10.06 | 3.80 | 3.73 | 3.08 | 112.62 | 112.69 | 113.34 |
| PZ-108 | 116.75 | 4.3 - 9.3 | 11.29 | 3.85 | 3.79 | 3.21 | 112.90 | 112.96 | 113.54 |
| PZ-109 | 118.18 | 8.5 - 13.5 | 15.03 | 6.38 | 6.53 | 5.93 | 111.80 | 111.65 | 112.25 |

Notes:

All datum reported in feet NGVD as indicated in historic site information provided by M&E

Refer to Table 5-1 from CDM Ph. 1A for all OW well info and P-5 info. MW and PZ well screen info from Table 2-8 of R

bgs = below ground surface

amsl = above mean sea level

Table 2
Groundwater Field Screening Parameters
Iron Horse Park Superfund Site - AOC 7 / OU3

| Date | Time | DTW (ft. bpsc) | Temp (°C) | Spec. Cond. (mS/cm ³) | DO (mg/L) | pH | ORP (mV) | Turbidity (NTU) | Notes |
|----------------|------|-------------------|--------------|--------------------------------------|--------------|------|-------------|--------------------|-------|
| MW-208B | | | | | | | | | |
| 4/23/09 | 1240 | 4.95 | 11.32 | 0.392 | 0.35 | 7.79 | 8 | 0.00 | -- |
| 7/27/09 | 1635 | 4.97 | 15.73 | 0.391 | 0.14 | 6.52 | -68.4 | 0.40 | -- |
| MW-208D | | | | | | | | | |
| 4/23/09 | 910 | 3.84 | 11.11 | 0.195 | 0.44 | 6.57 | 217 | 0.00 | -- |
| 7/27/09 | 1515 | 4.09 | 14.16 | 0.212 | 0.11 | 5.30 | -67.6 | 0.61 | -- |
| MW-208S | | | | | | | | | |
| 4/23/09 | 1040 | 4.10 | 10.25 | 0.149 | 0.28 | 6.86 | 9 | 0.00 | -- |
| 7/27/09 | 1233 | 4.34 | 15.53 | 0.177 | 0.08 | 5.41 | -99 | 1.91 | -- |
| MW-209B | | | | | | | | | |
| 4/20/09 | 1155 | 6.75 | 10.14 | 0.779 | 0.37 | 5.75 | 12 | 2.57 | -- |
| 7/28/09 | 1045 | 5.86 | 12.42 | 0.646 | 0.18 | 6.68 | -41 | 1.38 | -- |
| OW-9 | | | | | | | | | |
| 4/23/09 | 1155 | 4.02 | 12.79 | 4.660 | 0.20 | 5.00 | -125 | 1.65 | -- |
| 7/27/09 | 1205 | 4.1 | 15.13 | 5.643 | 0.08 | 5.09 | -5.6 | 0.52 | -- |
| OW-10 | | | | | | | | | |
| 4/22/09 | 1345 | 3.65 | 12.00 | 0.622 | 0.26 | 6.04 | 152 | 0.00 | -- |
| 7/27/09 | 1540 | 3.71 | 15.18 | 0.606 | 0.09 | 5.23 | -13.6 | 0.22 | -- |
| OW-11 | | | | | | | | | |
| 4/22/09 | 1140 | 3.79 | 12.00 | 0.258 | 0.31 | 6.68 | 24 | 1.04 | -- |
| 7/27/09 | 1655 | 3.91 | 14.53 | 0.327 | 0.06 | 6.03 | -8.7 | 0.52 | -- |
| OW-12 | | | | | | | | | |
| 4/22/09 | 1040 | 5.05 | 10.68 | 0.373 | 0.30 | 7.32 | -188 | 4.04 | -- |
| 7/28/09 | 845 | 6.1 | 13.97 | 0.379 | 0.04 | 7.19 | -177.2 | 1.11 | -- |
| OW-20 | | | | | | | | | |
| 4/20/09 | 1520 | 5.07 | 9.89 | 0.714 | 0.33 | 6.00 | 44 | 0.83 | -- |
| 7/28/09 | 1435 | 4.8 | 12.81 | 0.541 | 0.08 | 6.07 | 24.2 | 0 | -- |
| OW-21 | | | | | | | | | |
| 4/20/09 | 1145 | 4.71 | 6.42 | 0.052 | 0.79 | 5.70 | 7 | 4.09 | -- |
| 7/28/09 | 1200 | 4.39 | 14.21 | 0.079 | 0.13 | 5.94 | -86.3 | 1.97 | -- |
| P-5 | | | | | | | | | |
| 4/20/09 | 1450 | 3.88 | 6.23 | 0.118 | 0.42 | 5.10 | 10 | 1.12 | -- |
| 7/28/09 | 1421 | 3.29 | 15.18 | 0.110 | 0.25 | 6.21 | -118.1 | 4.20 | -- |
| PZ-107 | | | | | | | | | |
| 4/23/09 | 1340 | 3.10 | 7.97 | 0.459 | 0.27 | 7.05 | -119 | 1.10 | -- |
| 7/28/09 | 909 | 3.61 | 15.84 | 0.590 | 0.17 | 6.77 | -138.1 | 1.73 | -- |
| PZ-108 | | | | | | | | | |
| 4/23/09 | 900 | 2.67 | 7.99 | 0.592 | 0.33 | 6.92 | -78 | 1.61 | -- |
| 7/28/09 | 1032 | 3.57 | 17.49 | 0.707 | 0.12 | 6.70 | -133.8 | 1.36 | -- |
| PZ-109 | | | | | | | | | |
| 4/22/09 | 1345 | 6.26 | 8.88 | 0.976 | 0.41 | 6.79 | -103 | 5.27 | -- |
| 7/28/09 | 1146 | 6.57 | 15.76 | 0.701 | 0.09 | 6.55 | -144.4 | 7.51 | -- |

Table 3a
Groundwater Analytical Data Summary - General Chemistry
Iron Horse Park Superfund Site - AOC 7/ OU 3

| Well ID | Sample Date | | Total Alkalinity | Chloride | Total Cyanide | Nitrogen as Nitrate | Total Dissolved Solids | Sulfate | Total Organic Carbon |
|---------|-------------|-----------|------------------|----------|---------------|---------------------|------------------------|---------|----------------------|
| MW-208B | Apr-09 | Result | 49 | 70 | ND | 0.13 | 230 | 23 | ND |
| | | LRL | 2 | 1 | 0.005 | 0.1 | 10 | 10 | 1 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 55 | 68 | ND | ND | 270 | 23 | ND |
| | | LRL | 2 | 1 | 0.005 | 0.5 | 10 | 10 | 0.5 |
| | | Qualifier | | | | | | | R |
| MW-208D | Apr-09 | Result | 58 | 18 | ND | ND | 120 | ND | 3.7 |
| | | LRL | 2 | 1 | 0.005 | 0.1 | 10 | 10 | 1 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 59 | 21 | ND | ND | 120 | ND | 2.4 |
| | | LRL | 2 | 1 | 0.005 | 0.5 | 10 | 10 | 0.5 |
| | | Qualifier | | | | | | | J |
| MW-208S | Apr-09 | Result | 54 | 10 | ND | ND | 85 | ND | 4.5 |
| | | LRL | 2 | 1 | 0.005 | 0.5 | 10 | 10 | 1 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 66 | 10 | ND | ND | 88 | ND | 5.1 |
| | | LRL | 2 | 1 | 0.005 | 1 | 10 | 10 | 0.5 |
| | | Qualifier | | | | | | | J |
| MW-209B | Apr-09 | Result | 54 | 130 | ND | ND | 460 | 84 | 1.3 |
| | | LRL | 2 | 5 | 0.005 | 0.1 | 10 | 50 | 0.5 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 46 | 130 | ND | ND | 430 | 86 | 1.3 |
| | | LRL | 2 | 10 | 0.005 | 0.5 | 10 | 50 | 0.5 |
| | | Qualifier | | | | | | | J |
| OW-10 | Apr-09 | Result | 16 | 150 | ND | ND | 360 | 31 | 1.7 |
| | | LRL | 2 | 5 | 0.005 | 0.1 | 10 | 10 | 0.5 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 16 | 160 | ND | ND | 420 | 33 | 1.9 |
| | | LRL | 2 | 10 | 0.005 | 0.1 | 10 | 10 | 0.5 |
| | | Qualifier | | | | | | | J |
| OW-11 | Apr-09 | Result | 59 | 33 | ND | ND | 150 | 14 | 2.2 |
| | | LRL | 2 | 1 | 0.005 | 0.5 | 10 | 10 | 0.5 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 61 | 47 | ND | ND | 170 | 22 | 2.6 |
| | | LRL | 2 | 1 | 0.005 | 1 | 10 | 10 | 0.5 |
| | | Qualifier | | | | | | | J |
| OW-12 | Apr-09 | Result | 160 | 9.5 | ND | ND | 220 | ND | 24 |
| | | LRL | 2 | 1 | 0.005 | 0.1 | 10 | 10 | 5 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 180 | 8.5 | ND | ND | 220 | ND | 31 |
| | | LRL | 2 | 1 | 0.005 | 0.1 | 10 | 10 | 2 |
| | | Qualifier | | | | | | | J |
| OW-20 | Apr-09 | Result | 66 | 140 | ND | ND | 360 | 20 | 2.2 |
| | | LRL | 2 | 5 | 0.005 | 0.5 | 10 | 10 | 0.5 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 62 | 120 | ND | ND | 320 | 20 | 2.2 |
| | | LRL | 2 | 10 | 0.005 | 2 | 10 | 10 | 0.5 |
| | | Qualifier | | | | | | | J |

Table 3a
Groundwater Analytical Data Summary - General Chemistry
Iron Horse Park Superfund Site - AOC 7/ OU 3

| Well ID | Sample Date | | Total Alkalinity | Chloride | Total Cyanide | Nitrogen as Nitrate | Total Dissolved Solids | Sulfate | Total Organic Carbon |
|---------|-------------|-----------|------------------|----------|---------------|---------------------|------------------------|---------|----------------------|
| OW-21 | Apr-09 | Result | 8.6 | 1.9 | ND | ND | 78 | ND | 0.99 |
| | | LRL | 2 | 1 | 0.005 | 0.1 | 10 | 10 | 0.5 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 18 | 5.2 | ND | ND | 46 | 12 | 1.3 |
| | | LRL | 2 | 1 | 0.005 | 0.5 | 10 | 10 | 0.5 |
| | | Qualifier | | | | | | | J |
| OW-9 | Apr-09 | Result | 14 | 1600 | 0.008 | ND | 3400 | 74 | ND |
| | | LRL | 2 | 100 | 0.005 | 0.1 | 10 | 20 | 2.5 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 12 | 1800 | ND | ND | 3400 | 78 | ND |
| | | LRL | 2 | 50 | 0.005 | 0.5 | 10 | 50 | 0.5 |
| | | Qualifier | | | | | | | R |
| P-5 | Apr-09 | Result | 31 | 4.4 | 0.01 | ND | 56 | 15 | 1.4 |
| | | LRL | 2 | 1 | 0.005 | 0.5 | 10 | 10 | 0.5 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 32 | 3.4 | ND | ND | 57 | 14 | 1.8 |
| | | LRL | 2 | 1 | 0.005 | 1 | 10 | 10 | 0.5 |
| | | Qualifier | | U | | | | | J |
| PZ-107 | Apr-09 | Result | 280 | 3.9 | ND | 0.1 | 330 | ND | 25 |
| | | LRL | 2 | 1 | 0.005 | 0.1 | 10 | 10 | 5 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 300 | 4 | ND | ND | 380 | ND | 26 |
| | | LRL | 2 | 1 | 0.005 | 0.1 | 10 | 10 | 2 |
| | | Qualifier | | U | | | | | J |
| PZ-108 | Apr-09 | Result | 360 | 2.7 | ND | ND | 430 | 21 | 13 |
| | | LRL | 2 | 1 | 0.005 | 0.1 | 10 | 10 | 5 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 370 | 2.8 | ND | ND | 450 | 21 | 17 |
| | | LRL | 2 | 1 | 0.005 | 0.1 | 10 | 10 | 2 |
| | | Qualifier | | U | | | | | J |
| PZ-109 | Apr-09 | Result | 330 | 100 | ND | 0.14 | 590 | ND | 12 |
| | | LRL | 2 | 5 | 0.005 | 0.1 | 10 | 10 | 2 |
| | | Qualifier | U | | | | J | | U |
| | Jul-09 | Result | 340 | 30 | ND | ND | 430 | ND | 10 |
| | | LRL | 2 | 1 | 0.005 | 0.5 | 10 | 10 | 2 |
| | | Qualifier | | | | | | | J |

Notes:

All results are presented in milligrams per liter (mg/l) except for alkalinity (mg CaCO₃/L).

Detections above the laboratory reporting limit are in **bold text**.

LRL = Laboratory Reporting Limit

ND = Non-detect at the applicable Laboratory Reporting Limit.

J = Detected results estimated based on data validation.

U = Detected results qualified as non-detected based on data validation.

R = Detected results rejected based on data validation; Total Organic Carbon results reported below LRL in July 2009 samples were rejected due to improper sample preservation.

Table 3b
Groundwater Analytical Data Summary - VOCs
Iron Horse Park Superfund Site - AOC 7 / OU3

| Well ID | Sample Date | | 1,1-Dichloroethane | 1,1-Dichloroethene | 1,2,4-Trimethylbenzene | 1,2-Dichloroethane | Benzene | Chlorobenzene | cis-1,2-Dichloroethane | Methyl tert butyl ether | Naphthalene | n-Propylbenzene | o-Xylene | p/m-Xylene | p-Isopropyltoluene | Tetrachloroethene | Trichloroethene | |
|---|-------------|--------|--------------------|--------------------|------------------------|--------------------|---------|---------------|------------------------|-------------------------|-------------|-----------------|----------|------------|--------------------|-------------------|-----------------|------|
| MW-208S | April-09 | Result | ND | ND | ND | ND | ND | ND | 0.56 | ND | ND | ND | ND | ND | ND | ND | ND | |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| | July-09 | Result | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| MW-208B | April-09 | Result | 1.9 | ND | ND | 1.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| | July-09 | Result | 1.7 | ND | ND | 1.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| MW-209B | April-09 | Result | ND | ND | ND | 10 | ND | 0.86 | 0.63 | 1.9 | ND | ND | ND | ND | ND | ND | 1.9 | ND |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| | July-09 | Result | ND | ND | ND | 12 | ND | ND | 0.56 | 1.8 | ND | ND | ND | ND | ND | ND | 0.79 | ND |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| OW-12 | April-09 | Result | ND | ND | ND | ND | ND | ND | ND | ND | 6.3 | ND | ND | ND | ND | ND | ND | ND |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| | July-09 | Result | ND | ND | 6.6 | ND | ND | ND | ND | 1.2 | 12 | 0.56 | 2.1 | 1.6 | 2.9 | ND | ND | |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| OW-20 | April-09 | Result | 1.8 | 0.64 | ND | ND | ND | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND | 4.4 | 0.66 |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| | July-09 | Result | 2.1 | 0.64 | ND | ND | ND | 1.1 | ND | ND | ND | ND | ND | ND | ND | ND | 3.8 | 0.57 |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| OW-9 | April-09 | Result | 4.6 | 1.6 | ND | 2.4 | ND | 0.83 | 0.90 | ND | ND | ND | ND | ND | ND | ND | 4.7 | 3.5 |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| | July-09 | Result | 5.0 | 1.8 | ND | 2.6 | ND | 0.82 | 0.82 | ND | ND | ND | ND | ND | ND | ND | 4.0 | 3.5 |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| PZ-107 | April-09 | Result | ND | ND | ND | ND | 1.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| | July-09 | Result | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | |
| | | LRL | 0.75 | 0.5 | 2.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 2.5 | 0.5 | 1 | 1 | 0.5 | 0.5 | 0.5 | |
| Method 1 GW-1 Standard | | | 70 | 7 | NE | 5 | 5 | 100 | 70 | 70 | 140 | NE | 10,000 | 10,000 | NE | 5 | 5 | |
| Method 1 GW-3 Standard | | | 20,000 | 30,000 | NE | 20,000 | 10,000 | 1,000 | 50,000 | 50,000 | 20,000 | NE | 5,000 | 5,000 | NE | 30,000 | 5,000 | |
| Detection Frequency (14 wells total) | April-09 | | 3 | 2 | 0 | 3 | 1 | 3 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 2 | |
| | July-09 | | 3 | 2 | 1 | 3 | 0 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 2 | |

Notes:

All results are presented in micrograms per liter (ug/l).

LRL = Laboratory Reporting Limit.

ND = Non-detect at the applicable Laboratory Reporting Limit.

Detections above the laboratory reporting limit are in bold text.

Although the MCP Method 1 GW-1 Standard is *not* applicable to the Site, the standard is provided here for historic data comparison purposes

NE = No criteria established.

No qualifiers were applied to the data as a result of the Tier II data validation procedure.

No VOC analytes were detected in the monitoring wells not presented in this table.

Table 3c
Groundwater Analytical Data Summary - SVOCs
Iron Horse Park Superfund Site - AOC 7/ OU 3

| Well ID | Sample Date | | Acenaphthene | Fluorene | 2-Methylnaphthalene | Naphthalene |
|---|-------------|--------|--------------|----------|---------------------|-------------|
| PZ-107 | April-09 | Result | ND | ND | ND | ND |
| | | LRL | 5 | 5 | 5 | 5 |
| | July-09 | Result | 0.33 | 0.36 | ND | ND |
| | | LRL | 0.2 | 0.2 | 0.2 | 0.2 |
| OW-12 | April-09 | Result | ND | ND | ND | ND |
| | | LRL | 5 | 5 | 5 | 5 |
| | July-09 | Result | ND | 0.36 | 3.2 | 3.6 |
| | | LRL | 0.2 | 0.2 | 0.2 | 0.2 |
| Method 1 GW-1 Standard | | | 20 | 30 | 10 | 140 |
| Method 1 GW-3 Standard | | | 6,000 | 40 | 20,000 | 20,000 |
| Detection frequency (14 wells total) | April-09 | | 0 | 0 | 0 | 0 |
| | July-09 | | 1 | 2 | 1 | 1 |

Notes:

All results are presented in micrograms per liter (ug/l).

LRL = Laboratory Reporting Limit.

ND = Non-detect at the applicable Laboratory Reporting Limit.

Detections above the laboratory reporting limit are in **bold text**.

No qualifiers were applied to the data as a result of the Tier II data validation.

No SVOC analytes were detected in the monitoring wells not presented in this table.

Although the MCP Method 1 GW-1 Standard is *not* applicable to the Site, the standard is provided here for historic data comparison purposes only.

Table 3d
Groundwater Analytical Data Summary - Total Metals
Iron Horse Park Superfund Site - AOC 7/ OU 3

| Well ID | Sample Date | | Aluminum | Antimony | Arsenic | Barium | Beryllium | Cadmium | Calcium | Chromium | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Selenium | Silver | Sodium | Thallium | Vanadium | Zinc |
|---------|-------------|--------|----------|----------|---------|--------|-----------|---------|---------|----------|--------|--------|------|------|-----------|-----------|---------|--------|-----------|----------|--------|--------|----------|----------|-------|
| MW-208B | Apr-09 | Result | ND | ND | ND | 0.019 | ND | ND | 36 | ND | ND | ND | 0.15 | ND | 7.5 | 0.178 | ND | ND | 3.8 | ND | ND | 18 | ND | ND | ND |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.02 | 0.01 | 0.05 |
| | Jul-09 | Result | ND | ND | ND | 0.018 | ND | ND | 37 | ND | ND | ND | 0.21 | ND | 7.6 | 0.185 | ND | ND | 3.7 | ND | ND | 17 | ND | ND | ND |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.002 | 0.01 | 0.05 |
| MW-208D | Apr-09 | Result | ND | ND | ND | 0.03 | ND | ND | 16 | ND | ND | ND | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.02 | ND | ND |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 14 | ND | ND | ND |
| | Jul-09 | Result | ND | ND | ND | 0.031 | ND | ND | 18 | ND | ND | ND | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.002 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 6.8 | ND | ND | ND |
| MW-208S | Apr-09 | Result | ND | ND | 0.042 | 0.018 | ND | ND | 7.2 | ND | ND | ND | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.02 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 7.9 | ND | ND | ND |
| | Jul-09 | Result | ND | ND | 0.043 | 0.023 | ND | ND | 8.2 | ND | ND | ND | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.002 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 28 | ND | ND | ND |
| MW-209B | Apr-09 | Result | ND | ND | 0.005 | 0.045 | ND | ND | 55 | ND | ND | ND | 3.8 | ND | 22 | 1.23 | ND | ND | 7.2 | ND | ND | 2 | 0.02 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 28 | ND | ND | ND |
| | Jul-09 | Result | ND | ND | ND | 0.047 | ND | ND | 57 | ND | ND | ND | 3 | ND | 22 | 1.17 | ND | ND | 7.2 | ND | ND | 2 | 0.002 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 61 | ND | ND | 0.06 |
| OW-10 | Apr-09 | Result | 0.67 | ND | ND | 0.024 | ND | ND | 37 | ND | 0.039 | ND | 0.15 | ND | 7.6 | 2.5 | ND | 0.028 | 3 | ND | ND | 2 | 0.02 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 58 | ND | ND | 0.051 |
| | Jul-09 | Result | 0.6 | ND | ND | 0.025 | ND | ND | 38 | ND | 0.037 | ND | 0.18 | ND | 7.7 | 2.48 | ND | 0.027 | 2.9 | ND | ND | 2 | 0.002 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 25 | ND | ND | ND |
| OW-11 | Apr-09 | Result | ND | ND | 0.026 | ND | ND | ND | 16 | ND | ND | ND | 5.4 | ND | 2.2 | 1.14 | ND | ND | ND | ND | ND | 2 | 0.02 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 33 | ND | ND | ND |
| | Jul-09 | Result | ND | ND | 0.024 | 0.013 | ND | ND | 18 | ND | ND | ND | 5.8 | ND | 2.5 | 1.25 | ND | ND | ND | ND | ND | 2 | 0.002 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 36 | ND | ND | ND |
| OW-12 | Apr-09 | Result | 0.11 | ND | 0.008 | 0.014 | ND | ND | 29 | ND | ND | ND | 1.2 | ND | 0.3 | 0.166 | ND | ND | 13 | ND | ND | 2 | 0.02 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 41 | ND | ND | ND |
| | Jul-09 | Result | 0.15 | ND | 0.007 | 0.016 | ND | ND | 32 | ND | ND | ND | 0.42 | ND | 0.18 | 0.111 | ND | ND | 16 | ND | ND | 2 | 0.002 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 76 | ND | ND | ND |
| OW-20 | Apr-09 | Result | ND | ND | 0.015 | 0.057 | ND | ND | 28 | ND | 0.021 | ND | 12 | ND | 5 | 2.39 | ND | ND | 5.5 | ND | ND | 2 | 0.02 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 74 | ND | ND | ND |
| | Jul-09 | Result | ND | ND | 0.013 | 0.048 | ND | ND | 23 | ND | ND | ND | 8.4 | ND | 4.4 | 2.01 | ND | ND | 4.7 | ND | ND | 2 | 0.002 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | ND | ND | ND | 0.298 |
| OW-21 | Apr-09 | Result | 0.15 | ND | ND | 0.037 | ND | ND | 3.2 | ND | ND | ND | 1.2 | ND | 0.43 | 1.61 | ND | ND | ND | ND | ND | 2 | 0.02 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2.3 | ND | ND | 0.137 |
| | Jul-09 | Result | ND | ND | ND | 0.044 | ND | ND | 6.8 | ND | ND | ND | 4 | ND | 0.75 | 1.77 | ND | ND | ND | ND | ND | 2 | 0.002 | 0.01 | 0.05 |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.002 | 0.01 | 0.05 |

Table 3d
Groundwater Analytical Data Summary - Total Metals
Iron Horse Park Superfund Site - AOC 7/ OU 3

| Well ID | Sample Date | | Aluminum | Antimony | Arsenic | Barium | Beryllium | Cadmium | Calcium | Chromium | Cobalt | Copper | Iron | Lead | Magnesium | Manganese | Mercury | Nickel | Potassium | Selenium | Silver | Sodium | Thallium | Vanadium | Zinc |
|------------------------|-------------|--------|----------|----------|---------|--------|-----------|---------|---------|----------|--------|--------|------|-------|-----------|-----------|---------|--------|-----------|----------|--------|--------|----------|----------|-------|
| OW-9 | Apr-09 | Result | 0.8 | ND | ND | 0.116 | ND | ND | 370 | ND | 0.434 | ND | 1.8 | ND | 81 | 28.1 | ND | 0.333 | 20 | ND | ND | 540 | ND | ND | 0.151 |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 20 | 0.02 | 0.01 | 0.05 |
| | Jul-09 | Result | 0.87 | ND | 0.005 | 0.116 | 0.004 | ND | 390 | ND | 0.442 | ND | 1.5 | ND | 82 | 27.6 | ND | 0.334 | 20 | ND | ND | 510 | ND | ND | 0.207 |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.002 | 0.01 | 0.05 |
| P-5 | Apr-09 | Result | ND | ND | 0.005 | 0.02 | ND | ND | 4.0 | ND | 0.037 | ND | 7.2 | ND | 1.1 | 8.14 | ND | ND | ND | ND | ND | 3.0 | ND | ND | ND |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.02 | 0.01 | 0.05 |
| | Jul-09 | Result | 0.72 | ND | 0.007 | 0.023 | ND | ND | 4.8 | ND | 0.032 | ND | 7.1 | ND | 1.0 | 6.36 | ND | ND | ND | ND | ND | 3.9 | ND | ND | ND |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.02 | 0.01 | 0.05 |
| PZ-107 | Apr-09 | Result | ND | ND | ND | 0.024 | ND | ND | 86 | ND | ND | ND | 2.7 | ND | 4.4 | 0.714 | ND | ND | 7.3 | ND | ND | 13 | ND | ND | ND |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.02 | 0.01 | 0.05 |
| | Jul-09 | Result | ND | ND | 0.01 | 0.031 | ND | ND | 99 | ND | ND | ND | 2.4 | ND | 4.8 | 0.616 | ND | ND | 9.8 | ND | ND | 11 | ND | ND | ND |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.002 | 0.01 | 0.05 |
| PZ-108 | Apr-09 | Result | ND | ND | 0.006 | 0.035 | ND | ND | 120 | ND | ND | ND | 2.2 | ND | 8.7 | 0.901 | ND | ND | 7.8 | ND | ND | 7.6 | ND | ND | ND |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.02 | 0.01 | 0.05 |
| | Jul-09 | Result | 0.16 | ND | 0.015 | 0.042 | ND | ND | 120 | ND | ND | ND | 2.3 | ND | 9.0 | 0.804 | ND | ND | 8.3 | ND | ND | 6.4 | ND | ND | ND |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.002 | 0.01 | 0.05 |
| PZ-109 | Apr-09 | Result | ND | ND | 0.007 | 0.035 | ND | ND | 140 | ND | ND | ND | 8.3 | ND | 3.8 | 0.882 | ND | ND | 6.5 | ND | ND | 48 | ND | ND | ND |
| | | LRL | 0.1 | 0.05 | 0.005 | 0.01 | 0.005 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.02 | 0.01 | 0.05 |
| | Jul-09 | Result | ND | ND | 0.007 | 0.028 | ND | ND | 110 | ND | ND | ND | 6.6 | ND | 3.2 | 0.725 | ND | ND | 5.9 | ND | ND | 31 | ND | ND | ND |
| | | LRL | 0.1 | 0.002 | 0.005 | 0.01 | 0.004 | 0.004 | 0.1 | 0.01 | 0.02 | 0.01 | 0.05 | 0.01 | 0.1 | 0.01 | 0.0002 | 0.025 | 2.5 | 0.01 | 0.007 | 2 | 0.002 | 0.01 | 0.05 |
| Method 1 GW-1 Standard | | | NE | 0.006 | 0.01 | 2 | 0.004 | 0.005 | NE | 0.1 | NE | NE | NE | 0.015 | NE | NE | 0.002 | 0.1 | NE | 0.05 | 0.1 | NE | 0.002 | 0.03 | 5 |
| Method 1 GW-3 Standard | | | NE | 8 | 0.9 | 50 | 0.2 | 0.004 | NE | 0.3 | NE | NE | NE | 0.01 | NE | NE | 0.02 | 0.2 | NE | 0.1 | 0.007 | NE | 3 | 4 | 0.9 |

Notes:

All results are presented in milligrams per liter (mg/l).

LRL = Laboratory Reporting Limit.

ND = Non-detect at the applicable Laboratory Reporting Limit.

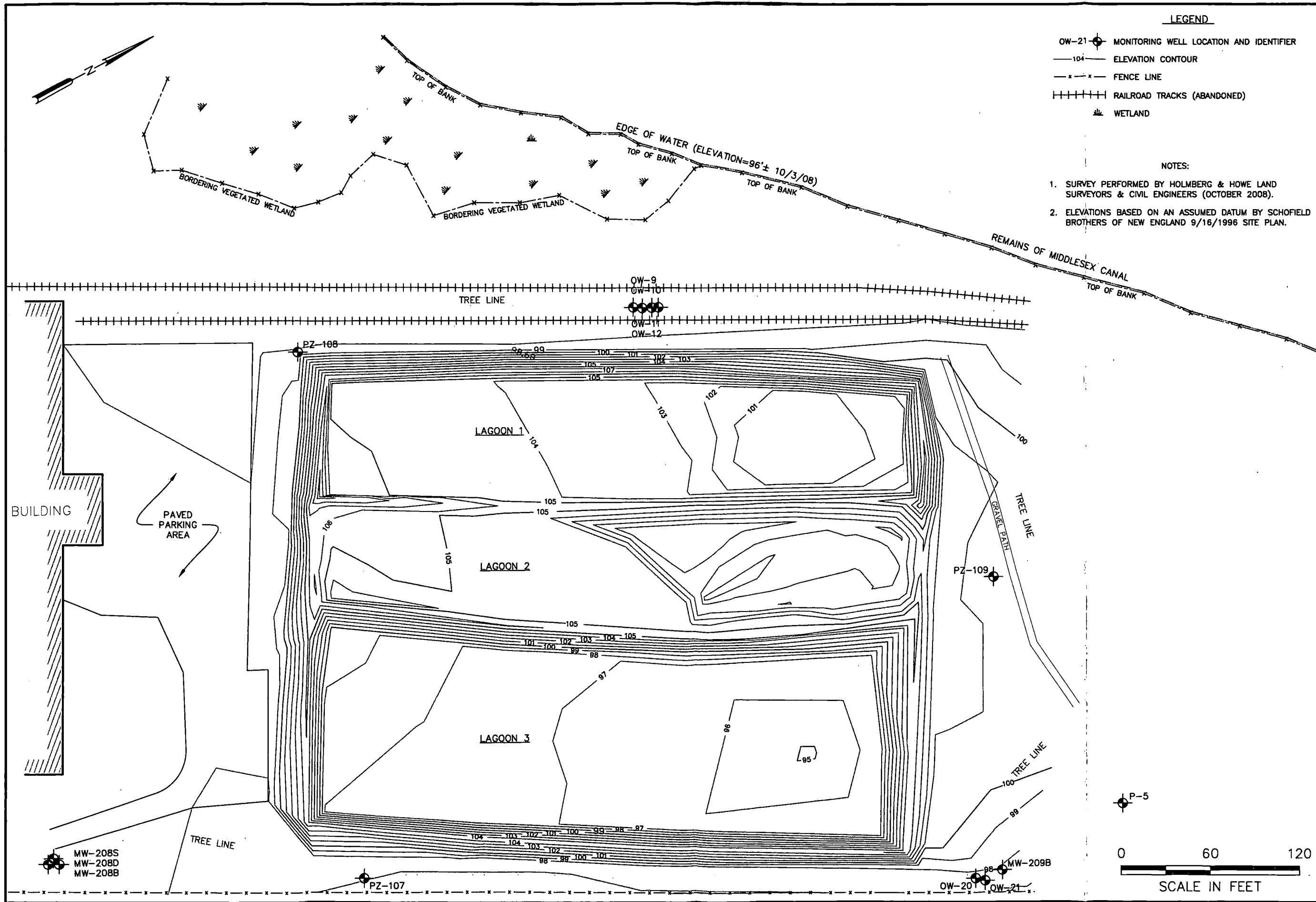
Green shading indicates an exceedance of the MCP Method 1 GW-3 Standard.

Although the MCP Method 1 GW-1 Standard is *not* applicable to the Site, the standard is provided here for historic data comparison purposes

Detections above the laboratory reporting limit are in **bold** text.

No qualifiers were applied to the data as a result of the Tier II data validation procedure.

No analytes were detected in April or July 2009 in the monitoring wells not presented in this table.



LEGEND

- OW-21 MONITORING WELL LOCATION AND IDENTIFIER
- 104 ELEVATION CONTOUR
- x-x-x-x FENCE LINE
- RAILROAD TRACKS (ABANDONED)
- WETLAND

NOTES:

1. SURVEY PERFORMED BY HOLMBERG & HOWE LAND SURVEYORS & CIVIL ENGINEERS (OCTOBER 2008).
2. ELEVATIONS BASED ON AN ASSUMED DATUM BY SCHOFIELD BROTHERS OF NEW ENGLAND 9/16/1996 SITE PLAN.

GROUNDWATER MONITORING WELL NETWORK

IRON HORSE PARK SUPERFUND SITE
OPERABLE UNIT 3, AREA OF CONCERN 7
BILLERICA, MASSACHUSETTS

ENVIRONMENTAL MONITORING
AND REPORTING PLAN

JOB NO: 221780
DATE: JUNE 2009
SCALE: AS NOTED

FIGURE 1

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COMMITMENT & INTEGRITY DRIVE RESULTS

DESIGNED BY: ALW
DRAWN BY: EVR
CHECKED BY: PEN
Figure 1.dwg

